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ABSTRACT

Initial efforts to collect data on the impact of Elementary Secondary Education Act Title I programs began in Pennsylvania in 1972. Due to the frequent turnover of local education agency (LEA) staff responsible for Title I impact reports and the fact that a study of the accuracy of reported scores revealed that some sort of errors appeared in almost nine out of ten school districts, it was decided that a quality control effort would be attempted within the Pennsylvania Department of Education. Consequently, the Title I Data Analysis system was designed and consisted of the following five steps: (1) preliminary data check and addition of district and building ID numbers, and keypunching; (2) data check of all fields punched; (3) check of raw score to percentile score conversions; (4) calculation of gain scores; and (5) report production. Each of the steps is described in some detail. In addition, appendices contain the data collection form and support materials; field specifications for Title I project impact data; a list of tests and years for which norms tables are available; and sample LEA report forms and glossary. (RL)

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DEVELOPMENT OF A QUALITY CONTROL SYSTEM FOR CENTRALIZED PROCESSING AND REPORT DEVELOPMENT

Francis J. Reardon
Pennsylvania Department of Education
April 14, 1981

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Annual Meeting of the
American Educational Research Association

Introduction

The advent of the national Title I Evaluation and Reportins system (TIERS) did not find Pennsylvania completely unprepared. Initial efforts to collect data on the impact of Title I programs began in Pennsylvania in 1972. These initial efforts were, by today's standards, a bit shoddy, involving the collection of pre-post grade equivalent scores from those districts who had such information available.

Following the reception of preliminary information on TIERS from the RMC Research Corporation workshops, the data collection was expanded to include raw scores and percentile ranks. To these were added information concerning the Title I treatment and the particular test used.

It was at this point that formal introduction of TIERS to the field primarily through the efforts of Technical Assistance Center (TAC) staff, took place. Attendance at TAC workshops provided Department staff with the impression that much of what was being discussed was new information to those receiving the workshops. There seemed to be a need for evaluation and test related information in the field, as well as a means for making the use of such information desirable. Consequently, SEA staff began development of a manual to explain the importance of the various requirements made by TIERS. These included the use of separate norms for fall and spring testing, testing on empirical norm dates, functional level testing, and the need for careful processing of scores to reduce errors.

Concurrent with preparation of the manual, a study of the accuracy of reported scores was performed. Since the study was done by staff members examining individual data reporting sheets only a small sample could be selected. It was drawn randomly, however, and there was good reason to believe it was representative. Results of this study demonstrated that over 50% of the reported pre-post scores included either technical, evaluation, or reporting errors. They ranged from random clerical errors to more systematic errors, such as testing far from the norming date, using the wrong norms tables, using tests without national norms, and making errors in complicated score conversions.

The large proportion of errors, and the fact that some sort of errors appeared in almost nine out of ten school districts, suggested a strong need for quality control. The frequent turnover of LEA staff responsible for Title I impact reports suggested the need for a system that would not be seriously affected by this turnover. Since all processing of data occurs centrally, it was decided that a quality control effort would be attempted centrally as well. This system includes preliminary contact with the field to disseminate data collection forms and support materials and the entire processing of data within the Department from incoming data sheets to production of reports for the Federal Government.

The Title I Data Analysis system can be divided into five parts. These are:

1) Preliminary data check and addition of district and building ID numbers, and keypunching
2) Data check of all fields punched
3) Check of raw score to percentile score conversions
4) Calculation of gain scores
5) Report production

Preliminary Data Check

Segments of this portion of the system will be discussed in turn. The initial step is performed by the Title I office. Reports are received, logged, and given a preliminary check to see if there are any significant amounts of missing

data. Location of such instances results in a telephone call to the district to determine what information should be included on the form. The data collection form on which districts submit their data is included as Appendix A. Also in Appendix A are a glossary and special instructions for completing the form, and a sample of test summary sheets indicating appropriate data to be supplied for districts using particular achievement tests. Once a district's forms are as complete as possible, the school district ID number is coded onto the form. If the district has provided them, building names are placed on the forms. Checked and coded forms are then forwarded to the Bureau of Research and Evaluation.

Arriving forms are logged and prepared for a second round of checking. This check examines the test scores, checks for completeness, eliminates superfluous information and checks for appropriateness of certain codes. The availability of staff time for these checking procedures is quite limited. This sometimes results in the checks being done in a somewhat cursory fashion. This is not to suggest that staff are not extremely conscientious, merely that they are pressured by time. Checked forms are then sent to the keypunching contractor.

Check of Data Fields

Part of the answer to the staff time problem has been to develop the second phase of the system. This involves the processing of data by a program which checks each field in a record to determine whether the entry in that field is within a specific range of valid entries contained in the program. The specific data fields and the ranges of acceptable responses for some are included as appendix B. Some of these checks are done independently, others are dependent on information in other fields. An example of an independent check is that for pupils from public schools versus pupils from nonpublic schools. This is a simple choice. The range of possible responses is 1 or 2. An example of a dependent field check would be that of test level. The designation green for test level would be acceptable for a district using the Stanford Diagnostic Reading Test, but inappropriate for a district using the California Achievement Test.

If errors are located in the field check, then a computer listing of these errors is printed. This listing prints the record containing the error, the record number, and a message indicating the field in which the error occurs and the type of error, e.g., public/nonpublic indicator not equal to 1 or 2, invalid subtest for test 101, etc. The data file is brought into the editing facility of the computer. All errors indicated on the printout are corrected, and the data are resubmitted. This should result in a printout with no errors, although this does not always happen. Because of a sequential error check, a second error in a line can be missed. If this is the case, the newly located errors are corrected and the data file is again submitted for analysis. When an error free printout is obtained, the data file is ready to move to the next phase of the operation.

Check of raw score to percentile conversions

Data files without errors are sorted by the pretest identification number that they contain. It is assumed that pretest and posttest are the same test. After sorting they are processed by a program which prints the names of all tests found in a given file on the terminal. The main file is then divided into subfiles by test. These files are then branched into one of two processing sequences. The sequence depends on whether or not the test used is one for which there are norms tables available on the computer. A list of the tests for which norms are available is in Appendix C. If norms are available score conversions made by the LEA are checked. If no norms are available, the data file bypasses this part of the system.

In order to check the accuracy of raw score to percentile conversions, the norms tables for a particular test are placed on a random access disk file. The parameters entered by a school district are used to select a particular norms table out of a set of about 1,000 such tables per test. These parameters are test, year of publication, form, level, subtest, and empirical norming date. Once the norms table is selected the raw score is entered and the percentile in the table corresponding to that raw score is located. If the percentile submitted by the district is equal to the percentile in the table, there is no change made. If they disagree, then the table percentile is entered into the student record. In addition to checking the percentile, all of the parameters are checked. In some cases there may not be a table corresponding to a given set of parameters. If this is the case, a flag is set indicating this. Most instances of this situation arise from out-of-level testing. The process is quite detailed and time consuming, involving a change of norm tables within each student record. It is a process that could not even be considered without access to high speed computing equipment.

When all of the students for a partiuclar district have been processed two additional files are created. One is a file of modified student records that includes correct percentiles and flags for any kinds of discrepancies contained in the data, e.g., raw score equal to zero, raw score out of range, no table, etc. The second file is a summary of the flag information, indicating the number of each type of flags appearing and the number of percentiles that were corrected. Assuming that the summary file does not indicate any serious problems, the data are then ready for the next step in processing. If there are any problems that can be corrected by editing this will be done and data will be resubmitted. All possible efforts are extended to minimize the number of flags in a data set. When all of these efforts are completed, the data pass to the next phase of the system.

Calculation of gain scores

Processed data are then submitted to a program which converts percentiles to NCE scores and calculates both NCE and grade equivalent gain scores from pretest to posttest for each student. Once again a new revised student record is created. This record includes pretest NCE and grade equivalent scores, posttest NCE and grade equivalent scores, and gain scores for each score type.

Actually there are two programs which are used to calculate the gain scores. One is used with data which has been processed through the entire system and may have corrected percentiles. The second program is used with the BYPASS routine and processes data on tests for which the Department does not have norms tables available. The number of such tests has been reduced from over 60 to less than 20 and will continue to decline as older versions of more current tests fall out of use. There are some good tests being used for which norms tables are not and will not be available, so the maintenance of the bypass procedure is quite necessary.

Whether going through the primary procedure or the bypass procedure, the resulting student records contain the same information in the same format. This can then be combined into one single district file, which is ready for the next step in the system, production of an LEA report.

Report production

The revised records for an entire district are then processed by the report generation routine. Initially the file is sorted by all pertinent treatment variables. The sorted file then is processed by the project level report program. This program aggregates grade equivalent and NCE scores for children who are receiving the same Title I treatment. Operationally receiving the same treatment means that there is no change over the groups for any of the treatment variables

supplied on the data collection form. It also means that there is no change in other variables also indicated on the form, e.g., building, subject, test, testing date, etc. This report provides an estimate of the impact of the Title I program (NCE gain) for a group of students receiving a very specifically defined treatment. A copy of each of the three reports provided to local school districts is included as Appendix D.

At the completion of the first report the data file is sorted again. The new sorted file is submitted to the second report program. This program prints reports on student data aggregated over both buildings and treatments. The only breaks are for subject matter, public and nonpublic, and grade level. This report is useful for the district that wants to examine the impact of its Title I program at entire grade levels. If a district makes no distinction among treatment variables and submits no building data, the first and second reports will be identical.

The data file used in developing report #2 is then processed by a similar program to produce report #3. This report is a one page summary of gain score information extracted from the second report. It provides a simple overview of gain scores and can be useful in suggesting areas for closer examination in the other reports.

After reports are printed the sorted files are erased to preserve disk storage space. The input file to the report routine is saved on tape for later analyses or the production of additional reports if such are requested. The three reports are sent to the school district and a copy is maintained in the Title I office.

Data are saved on tape until all of the school districts providing data for a given year are included. At this point it is possible to begin production of reports for the Federal government. The basic report required consists of four tables and supporting information. It aggregates student data for reading and math programs for year-to-year and fall to spring testing. Aggregated data within these four tables is broken down by grade level. These four tables provide estimates of the impact of Title I in Pennsylvania as a whole.

A second report for the Federal government is the project vector report. This takes the data for all students in grades 2, 6 and 10, and breaks it out on the basis of project vectors, which are essentially the same breaks, as used in producing report #1 for LEAs. A reduced amount of information allows each project, its decriptors and its impact information to be printed on one line.

These reports and supporting text are provided to the Federal government. Data are now available for research, additional report development, standardization or other activities that time and resources may permit.

APPENDIX A

Data Collection Form and Support Materials

DEBE 1169A (4/81)

INDIVIDUAL TEST SCORE DATA (Title I Students Only)

(Please refer to attached instructions before completing)

Page _____ of _____

Name of LEA	(PDE USE ONLY)	Building Name	(PDE USE ONLY)	Contact Person (Name, Area Code, Telephone Number)

A

1. Program (check one): 1 Reading; 2 Math
2. Terms (check one): 1 Regular; 2 Summer
3. School (check one): 1 Public; 2 Non-public
4. Testing interval: for Regular Term only (check one) Fall to Fall 1; Spring to Spring 2; Fall to Spring 3

B

1. Treatment (enter codes) 1. ____ 2. ____ 3. ____ 4. ____
2. Average Number Days Per Week (enter number) ____
3. Average Minutes Per Day (enter number) ____
4. Number of Weeks in Program (enter number) ____

C

O. Test Name _____

	PRETEST	POSTTEST
1. Test Code (3 digits)		
2. Year of Publication (2 digits)		
3. Subtest Code		
4. Form Code		
5. Empirical Norm Date	M M D D	M M D D
6. Testing Date	M M D D Y Y	M M D D Y Y

D

				PRETEST					POSTTEST					
1 Student Name	2 Student Number	3 Grade At Posttest	4 Years In School At Posttest (exclude K)	5 Test Level (enter code)	6 I/O Level	7 Raw Score	8 Grade Equiv.	9 %ile Rank	10 Test Level (enter code)	11 I/O Level	12 Raw Score	13 Grade Equiv.	14 %ile Rank	15

8

9

Name of LEA _____ Building Name _____ Page ___ of ___

D

				PRETEST					PROTEST					
1 Student Name	2 Student Number	3 Grade At Posttest	4 Years In School At Posttest (exclude K)	5 Test Level (enter code)	6 I/O Level	7 Raw Score	8 Grade Equiv.	9 %ile Rank	10 Test Level (enter code)	11 I/O Level	12 Raw Score	13 Grade Equiv.	14 %ile Rank	15

GLOSSARY AND SPECIAL INSTRUCTIONS

Part 1 (Individual Test Score Data)
DEBE 1169A - Page 8
1980-81

Heading Information

1. Enter the name of the LEA.
2. Enter the name of the building in which students on this page are housed. (Building entry is optional, but data cannot be reported by building without it.)
3. Enter the name and telephone number of the person responsible for completing the data submission.

Box A

1. Program - check whether the program being reported on this page is a reading program or a math program.
2. Term - check whether the term of this program is the regular school year or the summer.
3. School - check whether the school housing students on this page is a public school or a nonpublic school.
4. Testing interval - check the testing interval over which students on this page are being tested. Is it Fall to Fall, Spring to Spring, or Fall to Spring.

Box B

1. Treatment

    1. Class Structure

        Code

        1 Regular Classroom. At least 75% of the Title I-funded instruction occurred in the regular classroom of the Title I participants. Instruction may have incorporated a variety of teaching strategies using various materials (both commercial and/or teacher made) as well as machines.

        2 Pull-Out. At least 75% of the Title I-funded instruction occurred in a location other than the regular classroom. Instruction may have incorporated a variety of teaching strategies using various materials (both commercial and/or teacher made) other than instructional machines.

        3 Laboratory. At least 75% of the Title I-funded instruction occurred in a location other than the regular classroom of the Title I participants and instruction used machines primarily or exclusively.

Code

4 Regular Classroom and Pull-Out. This combination covers those projects in which approximately equal amounts of Title I instruction were provided in the regular classroom and in a location other than the regular classroom of the Title I participants.

5 Regular Classroom and Laboratory. This combination covers those projects in which approximately equal amounts of Title I instruction were provided in the regular classroom of the Title I participants and in a laboratory setting using machines.

6 Pull-Out and Laboratory. This combination covers those projects in which approximately equal amounts of Title I instruction were provided in a laboratory setting using machines and in a location other than the laboratory or the regular classroom of the Title I participants.

7 Other. This category should be used by any project whose setting was not adequately described by one of the six descriptions above.

2. Providers

Block #2 - Providers

1 = Title I paid teacher only
2 = Title I paid teacher plus aide
3 = Certified Title I paid reading specialist only
4 = Title I paid specialist, plus teacher
5 = Title I paid specialist, plus aide
6 = Title I paid specialist, plus aide, plus teacher
7 = District funded teacher/specialist plus Title I aide
8 = District funded teacher or specialist and certified teacher paid from Title I
9 = Option 4
0 = Other (If left blank, will read zero.)

3. Materials

Block #3 - Materials

1 = Basic materials purchased with district funds
2 = Supplementary materials purchased with Title I funds
3 = Teacher made materials
4 = Combination of items 1 and 2 above
5 = Combination of items 1 and 3 above
6 = Combination of items 2 and 3 above
7 = Combination of items 1, 2 and 3 above

4. Staff to Pupil Ratio

Block #4 - Average staff/pupil ratio

Do not enter a code. Enter the average number of pupils per staff number for the group reported on this page.

e.g., 3 pupils, 1 staff member, enter 3
12 pupils, 1 staff member, enter 12
12 pupils, 2 staff members, enter 6
Enter whole numbers only.

2. Average Number of Days per Week

Enter the average number of days per week this group of students meets. Whole numbers only. e.g., If 3 days one week and 5 the next, enter 4. If the same every week, enter that number.

3. Average Number of Minutes per Day

Enter the average length of a meeting of these students for a particular session in minutes.

[5] 5 minutes per day [20] 20 minutes per day

If over 99, enter 99.

4. Number of Weeks in the Program

Enter the number of weeks that these students were in the Title I program. This number may exceed the pretest/posttest interval.

[9] 9 weeks in the program [36] 36 weeks in the program

This number is the number of weeks that the students on this page were served by the Title I program. It has nothing to do with a pretest-posttest interval.

Box C

The information to be supplied in this box is test specific. It also requires a substantial amount of coding. In order to provide this information in the least distracting way, a series of one-page (sometimes 1 1/2) compilations of information about specific tests has been included in this year's glossary. Each page is for a specific test. More than the name is necessary to find the proper page. Check the year of publication also, as we have multiple years of several tests.

This listing covers a broad range of tests that are used throughout the state. It is not entirely comprehensive, however. There are some tests which may provide a useful measure of your program that have

not been included. Should you opt to use such a test, please contact your regional reviewer. The reviewer, after consideration with the Research and Evaluation Bureau, will provide you with the necessary information.

The information for the completion of Box C is at the end of the glossary.

Section D: Student Data

D1: Student Name

The listing of names of every student for whom test scores are being reported is optional but encouraged, since names help state reviewers/monitors resolve quickly questions of eligibility. Names may be listed in any order. The information in Sections A, B and C should be accurate for every student listed in Section D. If, for example, six pupils are from nonpublic schools, they should be listed on an entirely separate form from public school students. If you need space for more students and there are no changes in Sections A, B and C, continue Section D on a continuation page so that you will not have to fill out the top sections over again.

D2: Student Number

Each student must be assigned a unique number that will accompany him/her throughout his/her academic career. For each student, the same number will be used again next year on the Title I data reporting form. This process will make it possible to study the effects of Title I programs on student achievement over several years.

Any numbering system may be used. The maximum number of digits allowable is nine (9). If you already have a numbering system used in your LEA you may use the same system here for convenience. If you are creating a new system for use on this form or adapting your present system, you may find it helpful to assign the first two digits of a student's number according to the program year in which he/she first entered the Title I program (e.g., 81 - for a student entering in program year 80-81). This will insure that students in subsequent years are not assigned numbers that are already being used.

Retain a record of students' names and corresponding numbers for use next year.

D3: Grade at Posttest

Record each student's grade placement as of the date of the posttest as a whole number (e.g., "3" for a student in the seventh month of third grade at posttesting).

D4: Years in School

Record the number of years each child has been in school at the time of the posttest. Do not include kindergarten in the count. A child in the third grade who has never been retained would be listed as a "3," even though he/she has not finished the third grade yet and even though he/she spent a year in kindergarten. A child in the third grade who has been retained for one year would be listed as a "4."

D5 and D10: Test Level (Pretest and Posttest)

Enter the code for the level of the test at which each child was tested. Level codes may be found on the coding guide sheet for the test you are using. (Do not confuse level with form). Enter pretest level in block D5 and posttest level in block D10. If succeeding students are using the same test level at pretest or posttest, you may use ditto marks (").

D6 and D11: In-Level/Out-of-Level Testing (Pretest and Posttest)

Indicate whether this child was tested "in-level" or "out-of-level" at the pretest in block D6 and at the posttest in block D11. Enter "I" to indicate in-level testing or "O" to indicate out-of-level testing. Information on what test levels have in-level norms for a particular grade may be found on the coding guide sheet for the test you are using.

D7 and D12: Raw Score (Pretest and Posttest)

Enter each child's raw test score on pretest and posttest. If the student is being tested out-of-level, report the out-of-level raw score and not the corresponding in-level raw score.

D8 and D13: Grade Equivalent (Pretest and Posttest)

Record each student's grade equivalent at pretest and posttest. Determine grade equivalent using tables provided by test publisher. If interpolation is necessary for finding the grade equivalent, then round to the nearest tenth (e.g., as interpolated GE of 2.78 would be reported as 2.8).

D9 and D14: Percentile (Pretest and Posttest)

Record each student's percentile rank at pretest and posttest. Determine percentile using tables provided by test publisher. If interpolation is necessary for finding the percentile, then round to the nearest whole number (e.g., an interpolated percentile of 19.73 would be reported as 20). If student has been tested out-of-level, then the corresponding in-level percentile should be reported.

D15: Special Education Student

Record an S after the posttest percentile score if the student is classified as special education and is mainstreamed into Title I.

CALIFORNIA ACHIEVEMENT TEST (1977)

Position on Form 1169A	Content	Information to be coded on Form 1169A
C0	Name of test	CAT - 77
C1	Test code	101
C2	Year of publication	77
C3	Subtests	Codes
	Vocabulary	RVOCAB
	*Reading Comprehension	RCOMP
	*Total Reading	TREAD
	Math Computation	MACMP
	Math Concepts and Applications	MACOAP
	*Total Math	TMATH
	*Preferred	
C4	Test Forms	Codes
	C	C
	D	D
		Codes
C5	Empirical Norm Dates	
	Fall - 11/3	11/03
	Spring - 5/4	05/04

See Comments

C6	Enter your testing date	MM DD YY

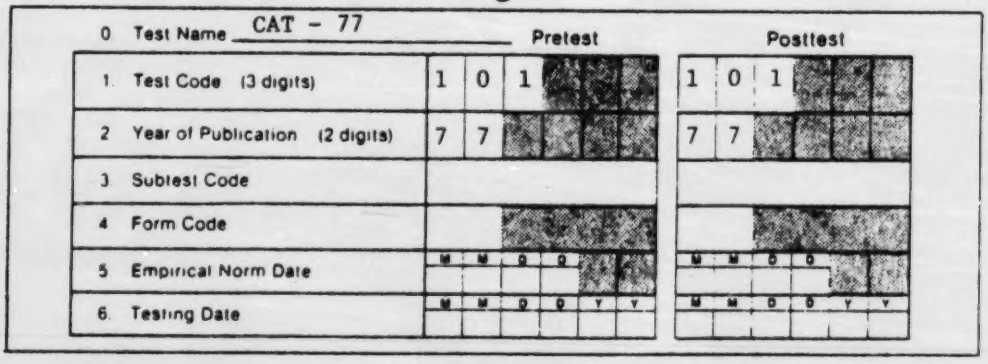
Continued on next page

TEST: CALIFORNIA ACHIEVEMENT TEST (1977)

D4	Test levels	Empirical In-level norms for these grades	Codes
	10	K - Fall	10
	11	K - Spring; 1 - Fall & Spring	11
	12	1 - Spring; 2 - Fall & Spring	12
	13	2 - Spring; 3 - Fall & Spring	13
	14	3 - Spring; 4 - Fall & Spring	14
	15	4 - Spring; 5 - Fall & Spring	15
	16	5 - Spring; 6 - Fall & Spring	16
	17	6 - Spring; 7 - Fall & Spring	17
	18	7 - Spring; 8 & 9 - Fall & Spring	18
	19	9 - Spring; 10, 11 & 12 - Fall & Spring	19

COMMENTS: Out of level testing can be performed with this test through the use of the Obtained Scale score. (Information concerning the correct conversion procedures can be obtained from NTS/TAC.) The publisher recommends testing no more than one level below the designated grade level, but cautions out-of-level testing with levels 10, 11, and 12. If you plan to use any of these level for out-of-level testing, please contact NTS/TAC for additional information. Locator Tests are available to assist in test level selection.

Interpolated norms are available from the publisher. These norms are available for the Quarter-Months (weeks) of September 1-7 through December 16-23 for Fall testing and March 16-23 through June 16-22 for Spring. If you plan to use any of the interpolated norms, please contact the publisher for the supplemental norms booklets, and NTS/TAC for additional information. ©



(FALL) (SPRING)

GATES-MacGINITIE READING TESTS (1978)

Position on Form 1169A	Content	Information to be coded on Form 1169A
C0	Name of test	Gates-MacGinitie
C1	Test code	104
C2	Year of publication	78
C3	Subtests	Codes
	Reading Vocabulary	RVOCAB
	*Reading Comprehension	RCOMP
	*Total Reading	TREAD
	*Preferred	
C4	Test Forms	Codes
	1	1
	2	2
	3	3
C5	Empirical Norm Dates / Grades	Codes
	Fall - 10/15 / 2-10	10 15
	Winter - 02/15 / grade 1, level A	02 15
	Spring - 05/15 / 1-12	05 15
C6	Enter your testing date	MM DD YY

D4	Test Levels	Empirical In-level norms for these grades	Empirical Out-of-Level norms for these grades	Codes
	A	1. - Winter & Spring	2 - Fall & Spring	A
	B	2. - Fall & Spring	3 - Fall & Spring	B
	C	3. - Fall & Spring	4 - Fall & Spring	C
	D	4, 5 & 6. - Fall & Spring	7 - Fall & Spring	D
	E	7, 8 & 9. - Fall & Spring	10 - Fall & Spring	E
	F	10. - Fall & Spring; 11 & 12. - Spring		F

TEST: GATES - MacGINITIE READING TESTS (1978)

COMMENTS: Out of level testing can be performed with this test. Empirical out-of-level norms tables are provided for each of the grades as listed above. The publisher recommends testing no more than one level below the designated grade level.

C

0. Test Name Gates-MacGinitie	Pretest	Posttest
1. Test Code (3 digits)	1 0 4	1 0 4
2. Year of Publication (2 digits)	7 8	7 8
3. Subtest Code		
4. Form Code		
5. Empirical Norm Date	M M D D 1 0 1 5	M M D D 0 5 1 5
6. Testing Date	M M D D Y Y	M M D D Y Y

(FALL) (SPRING)

Appendix B

Field Specifications for Title I Project Impact Data

Column	Information in Field
1	Blank
2-8	District ID # PDE CODED
9-12	Building ID # PDE CODED
13	Type of program Reading = 1 Math = 2
14	Term Regular = 1 Summer = 2
15	Type of schools Public = 1 Nonpublic = 2
16	Test Interval Fall to fall = 1 Spring to spring = 2 Fall to spring = 3
17	Class structure Range is 1-7 (Explained in glossary)
18	Provides Range is 1-0
19	Materials Range is 1-7
20-21	Pupil to staff ratio Enter the number of pupils per staff member when the child is being treated (see glossary for examples)
22	Average number of meetings per week Enter the number of meetings this group of students has in a given week
23-24	Average number of minutes per meeting Enter the number of minutes a typical meeting lasts for this group of students
25-26	Number of weeks in the program Enter number of weeks this group was in the program
27-29	3 digit code to identify specific Title I project serving these students (locally devised)
30-32 and 53-55	Test Code as specific on the test summary sheets
33-34 56-57	Year of publication as on test summary sheets
35-40 and 58-63	Subtest code from test summary sheets. Left justify
41-42 and 64-65	Form Code from test summary sheets. Left justify
43-46 and 66-69	Empirical norm dates from test summary sheets.
47-52 and 70-75	Testing dates. Date of pretest and date of posttest using MMDDYY format.

Much of the remaining information is test scores. Test level, specific to testing occasion, is also obtained from the test summary sheets. All other information in Part D of the form is generated at the LEA.

Appendix C

List of Tests and Years for Which Norms Tables are Available

California Achievement Test	(1970, 1977)
Gates MacGinitie	(1965, 1978)
Iowa Test of Basic Skills	(1971, 1978)
Metropolitan Achievement Test	(1970, 1978)
Stanford Achievement Test	(1973)
Stanford Diagnostic Math Test	(1976)
Stanford Diagnostic Reading Test	(1976)

Appendix D

Sample LEA Report Forms and Glossary

TITLE I EVALUATION REPORT

(1) READING PUBLIC SCHOOLS

(2) SCHOOL DISTRICT:

(3) BUILDING:
(4) GRADE: 3

(5) NUMBER ANALYZED: 35
MEMBERSHIP: 35
NUMBER WITH PRETEST ONLY 0
NUMBER WITH POSTTEST ONLY 0

(6) PRE-TEST DATE: 10/5/79
(7) POST-TEST DATE: 5/19/80
(8) INTERVAL (MONTHS): 7.45

TESTING INTERVAL WAS FALL TO SPRING

TREATMENT CATEGORIES
(9) SESSION: REGULAR
(10) PULL-OUT
(11) CERTIFIED TITLE I PAID READING SPECIALIST ONLY

(12) BASIC MATERIALS PURCHASED WITH DISTRICT FUNDS
SUPPLEMENTARY MATERIALS PURCHASED WITH TITLE I FUNDS
TEACHER MADE MATERIALS
(13) PUPIL TO STAFF RATIO: 6 PUPIL(S) PER STAFF MEMBER
(14) MEETINGS/WEEK: 5
(15) MINUTES/MEETING: 40
(16) DURATION OF PROJECT (WEEKS): 32

TEST INFORMATION
(17) TEST: GATES MCGINITIE
(18) SUBTEST CODE: RCOMP
(19) FORM: 1
(20) PRE-TEST LEVEL: C (21) POST-TEST LEVEL: C

	(23) GRADE EQUIV	(24) N C E	(25) PERCENT EQUIV
(22) PRE-TEST (MEAN)	1.877	24.857	11.857
(26) POST-TEST (MEAN)	3.106	39.657	30.657
(27) GAIN (MEAN)	1.229	14.800	18.800

(28) GAIN (MONTHS) / MONTHS IN PROG. 1.649
(29) T-TEST 9.0485 STATISTICALLY SIGNIFICANT AT ALPHA OF 0.05

(10)

GLOSSARY FOR ESEA TITLE I EVALUATION REPORT

Headings

(1) Line 1 states whether the information following is for your district's reading or math test scores. To the right of this information is the label "public" or "nonpublic" indicating that these scores are for your Title I students who attend public or private schools.

(2) The name of your school district is given.

(3) Line 3 reports the specific building for which these test scores were reported if you have supplied this information. If line 3 is blank, the following data are for your entire district.

(4) The grade level of the students tested is given.

(5) Line 5 reports the number of students included in the analysis. This figure is probably lower than the number of students served by your Title I program. The "number analyzed" only includes those students who had an accurately reported pretest and posttest score. Membership is the sum of number analyzed and students with pretests only. The number with posttests only is also printed.

(6) The date the students were pretested is given.

(7) The date the students were posttested is given.

(8) Line 8 is the difference in months between the pretest date and posttest date. It is this period of your Title I program which is actually evaluated. Your description of your testing interval is included after the calculated interval.

(9)

Treatment Categories

(9) The term "regular" indicates that the report following is for a Title I program operating during the regular school year.

(10) Indicates whether the students tested are in a Title I program which operates in a regular classroom, in a Title I program where students leave the classroom for instruction ("pull-out"), or in a laboratory setting or a combination of these.

(11) Line 11 describes who provides instruction in the Title I program.

(12) Line 12 lists the sources of instructional materials used in the Title I program.

(13) Line 13 provides the number of Title I pupils per staff member for the specific program being evaluated.

(14) Reports how many times per week Title I instruction is provided to the students.

(15) Indicates the length of each instructional period.

(16) Indicates the length in weeks of the Title I program under evaluation.

(17) Provides the name of the standardized test used for measuring the achievement gains for this group of Title I students.

(18) Line 18 reports the subtest of the standardized test submitted for analysis.

(19) Reports the form of the test used.

(20) and (21) Report the test level used for pretesting and posttesting of students.

NOTE: IMMEDIATELY FOLLOWING LINE (20) YOU WILL FIND AN ERROR MESSAGE IF THE DATE OF THE PRETEST OR POSTTEST WAS MORE THAN TWO (2) WEEKS FROM THE EMPIRICAL NORMING DATE OF THE TEST USED BY YOUR DISTRICT. A SECOND MESSAGE DEALS WITH WHETHER OR NOT YOUR SCORES WERE CHECKED AGAINST THE NORMS TABLES ON THE DEPARTMENT COMPUTER.

(22) Line 22 provides the average pretest scores for this group of students. First, the average grade equivalent is printed (23), followed by the average normal curve equivalent (24), and the percentile equivalent of the average NCE (25). The averages are the sum of the test scores divided by the number of students.

NOTE: IF THE NUMBER OF STUDENTS ANALYZED (LINE 5) IS FIVE OR LESS, AVERAGES ARE COMPUTED WITH A MESSAGE ABOUT THE SMALL NUMBER BEING A SOURCE OF INACCURACY. Averages on such small numbers of children are seldom trustworthy or useful.

(26) Line 26 provides the average posttest scores for this group of students. As for the pretest, the average grade equivalent (23), normal curve equivalent (24), and percentile equivalent (25). The average gain scores reported on line 27 are found by subtracting the average pretest means (22) from the average posttest means (26).

(27) Line 27 reports the average gain for this group of students in terms of grade equivalent (23), normal curve equivalent (24), and percentile equivalent (25). The average gain scores reported on line 27 are found by subtracting the average pretest means (22) from the average posttest means (26).

(28) Line 28 reports average gains in grade equivalents for each month of Title I instruction. If this figure is greater than 1.0, your Title I students progressed at a rate above the average gain nationwide. If the gain is very close to 1.0 your Title I students are achieving at a rate consistent with the norming group for your standardized test.

(29) Line 29 reports the results of a t-test taken on the NCE gains given in column 24. To the right of the t value is a statement that the NCE gains observed for this group of students is or is not statistically significant at the alpha 0.05 level. If significant, the NCE gains observed would occur by chance less than five times in 100. Because the odds of these gains occuring by chance are so small, you may assume that the gains are a result of your Title I program. If your NCE gains are not statistically significant, they may still be educationally significant. You may feel that any gain is a significant event.

NOTE: THE t-TEST IS NOT COMPUTED IF THE "NUMBER ANALYZED" (LINE 5) IS TEN (10) OR LESS. THIS COMPUTATION WOULD BE MISLEADING ON SUCH A SMALL NUMBER.

TITLE I EVALUATION REPORT

(1) READING PUBLIC SCHOOLS

(2) SCHOOL DISTRICT:

(3) AGGREGATION OVER ALL BUILDINGS
(4) GRADE: 3

(5) NUMBER ANALYZED: 73

MEMBERSHIP: 73
TREATMENT CATEGORIES

(9) AGGREGATION OVER ALL TREATMENTS

		(23) GRADE EQUIV	(24) N C E	(25) PERCENT EQUIV
(22)	PRE-TEST (MEAN)	1.963	27.301	13.651
(26)	POST-TEST (MEAN)	3.086	39.849	30.849
(27)	GAIN (MEAN)	1.123	12.548	17.199

(28) GAIN (MONTHS) / MONTHS IN PROG. 1.507
(29) T-TEST 9.9327 STATISTICALLY SIGNIFICANT AT ALPHA OF 0.05

TITLE I EVALUATION REPORT

SCHOOL DISTRICT:

READING

PUBLIC SCHOOLS

GRADE	NUMBER ANALYZED	G E GAIN	GAIN(MONTHS)/MONTH IN PROG.	NCE GAIN	PERCENTILE GAIN
2	21	0.895	1.239	16.905	25.905
3	30	1.040	1.439	17.467	28.467
4	6	0.650	0.900	5.667	7.333
6	12	1.350	1.868	8.250	11.250
7	12	1.383	1.914	11.333	14.417
8	8	1.900	2.629	15.000	20.000

NON-PUBLIC SCHOOLS

GRADE	NUMBER ANALYZED	G E GAIN	GAIN(MONTHS)/MONTH IN PROG.	NCE GAIN	PERCENTILE GAIN
2	15	1.140	1.578	16.067	29.067
3	9	0.711	0.984	10.444	18.444
4	4	1.075	1.488	8.500	14.500
5	25	1.156	1.600	6.440	10.440
6	5	1.580	2.187	10.600	16.600
7	1	1.800	2.491	21.000	18.000